

Three new genera of *Grallatotermes* complex (Isoptera: Termitidae: Nasutitermitinae)

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(With eight text-figures)

INTRODUCTION

The generic status of the group of termites formerly included by various authors in the genus *Grallatotermes* was not definite from the time Holmgren (1912) proposed the name *Grallatotermes* as a monotypic subgenus of the now defunct genus *Eutermes* Hagen with *Termes grallator* Desneux as the type species. Desneux (1905) described the species *grallator* on the basis of a collection of soldiers and workers made by Biro in 1901 at Graget Island, New Guinea. Oshima (1914, 1917, 1920) described three species from the Philippine Islands, viz. *Eutermes (Grallatotermes) luzonicus* Oshima, *E. (G.) brevirostris* Oshima, and *E. (G.) panayensis* Oshima, under the subgenus *Grallatotermes*. These species have been subsequently found to belong to the genus *Nasutitermes* Banks (*vide* Light & Wilson 1936). In 1917, K. & N. Holmgren described from south India a new species, *Eutermes (Grallatotermes) grallatoriformis* K. & N. Holmgren. Snyder (1925) described from the Papuan region (Santa Cruz Archipelago) another new species of the subgenus *Grallatotermes*, namely *Nasutitermes (Grallatotermes) oceanicus* Snyder. Subsequent examination proved that it is a synonym of *Nasutitermes novarum-hebridarum* (K. & N. Holmg.) (*vide* Snyder 1949, p. 290). In 1930, Light raised the subgenus *Grallatotermes* to generic rank and added a new species, *G. admirabilis*, to it from the Philippines. Kemner (1931) described *Grallatotermes weyeri* from Amboina. In 1936, Light & Wilson described a second species of *Grallatotermes*, namely *G. splendidus*, from the Philippines. Snyder (1949) catalogued the following five species under the genus *Grallatotermes*: *admirabilis* Light, *grallator* (Desneux), *grallatoriformis* (K. & N. Holmgren), *splendidus* Light & Wilson, and *weyeri* Kemner. In 1954, Harris added another new species, *Grallatotermes africanus*, from East Africa. Recently

Chatterjee & Thapa (1964) described a new species, *Grallatotermes niger*, from south India. On the basis of the structure of imago-worker mandibles and a constellation of other characters in soldiers and workers, it has been observed that in this complex more than one genus is involved. Unfortunately, no specimen of *G. splendidus* Light & Wilson and *G. weyeri* Kemner was available to me. The three new genera described here are based on the following species: *G. admirabilis* Light, *G. grallatoriformis* (K. & N. Holmg.), *G. niger* Chatterjee & Thapa, and *G. africanus* Harris.

This study shows that the genus *Grallatotermes* and its three allied new genera correctly belong to the *Paracornitermes* branch of the diphyletic tree of the subfamily Nasutitermitinae and not to the *Procornitermes* branch as mentioned by Ahmad (1950) and Sands (1957). It is worth mentioning that the imago-worker mandibles of *G. splendidus* Light & Wilson as illustrated by Ahmad (1950) indicate that *splendidus* correctly belongs to *Procornitermes* branch. This explains the erroneous conclusion of Ahmad.

MATERIAL AND METHOD

This study is based primarily on the termite collection present at the Forest Research Institute, Dehra Dun. The species *G. africanus* was, however, obtained through the courtesy of Dr. W. V. Harris, British Museum (Nat. Hist.), London, to whom my grateful thanks are due. Details of the material studied have been given under the respective genus.

The specimens were studied in alcohol under a binocular dissecting microscope. Mandibles were, however, studied after dissection. The drawings were made with the help of a camera lucida.

SYSTEMATIC DESCRIPTIONS

1. Genus *Grallatotermes* Holmgren

- = subgenus *Grallatotermes* of *Eutermes*, Holmgren, 1912, *K. Sven. Vet. Akad. Handl.*, **48**, pp. 59-62, 65.
- < subgenus *Grallatotermes* of *Eutermes*, Oshima, 1914, *Annot. Zool. Japonensis*, **8**, p. 581.
- < subgenus *Grallatotermes* of *Eutermes*, Oshima, 1917, *Annot. Zool. Japonensis*, **9**, p. 198.
- < subgenus *Grallatotermes* of *Eutermes*, K. & N. Holmgren, 1917, *Mem. Dept. Agr. India*, **5**, p. 163.
- < subgenus *Grallatotermes* of *Eutermes*, Oshima, 1920, *Philippine J. Sci.*, **17**, p. 505.
- < subgenus *Grallatotermes* of *Nasutitermes*, Snyder, 1925, *J. Washington Acad. Sci.*, **15**, pp. 439-440.
- < genus *Grallatotermes*, Light, 1930, *Philippine J. Sci.*, **42**, pp. 16-17, 19, 40.

- < genus *Grallatotermes*, Kemner, 1931, *Fysiogr. Sällsk. Handl.*, N. F. **42**, p. 46-50.
- < genus *Grallatotermes*, Light & Wilson, 1936, *Philippine J. Sci.*, **60**, pp. 476-479.
- < genus *Grallatotermes*, Snyder, 1949, *Smith. misc. Coll.*, **112**, p. 314.
- < genus *Grallatotermes*, Harris, 1954, *Proc. roy. ent. Soc. Lond. (B)*, **23**, pp. 135-137.
- < genus *Grallatotermes*, Ahmad, 1958, *Biologia*, **4**, p. 127.

Type species. *Grallatotermes grallator* (Desneux) (= *Termes grallator* Desneux, 1905).

Holmgren (1912) proposed the name *Grallatotermes* as a monotypic subgenus of the now obsolete genus *Eutermes* Hagen for *Termes grallator* Desneux which became the type species by monotype and absolute tautonymy (*vide* Article 30, International Rules of Nomenclature). Subsequently several species were included in it as mentioned earlier. In 1930, Light raised the subgenus to generic rank.

On the basis of this study the present author cannot refer any other species to the genus *Grallatotermes* as restricted by him.

Holmgren (1912) characterized the subgenus *Grallatotermes* as follows: 'Nase Kurz, sehr breit kegelförmig. Antennen 13-gliedrig, 3. Glied mehr als zweimal so lang wie 2., 4. Kurzer als 3., Kopf hinter den Antennen nicht hantelförmig eingeschnürt'. ["Nasus short, rather broadly conical. Antennae 13-segmented, segment 3 more than twice as long as 2, 4 shorter than 3. Head behind the antennae is not constricted."] As the above description is meagre and as no other description is available, the genus has now been redefined.

Material

One vial containing one soldier and one worker collected from New Guinea by Dr. Burger on 20-vii-1912. Det. by N. Holmgren as '*Eutermes (Grallatotermes) grallator*'.

Description

1. IMAGO. Not known so far.

2. SOLDIER (Fig. 1). Head-capsule and antennae somewhat dark reddish brown, thoracic tergites brown, abdominal tergites pale brown with darker margins.

Head pear-shaped from above, with short hairs, length to base of rostrum a little more than maximum width, with a shallow constriction behind base of antennae. Rostrum markedly conical with broad base, apex slightly up-lifted in profile. Antennae with 13 segments, 3rd segment longer than 2nd. Mandibles vestigial, each with a short mandibular blade vestige ('points' and 'lateral spinous

process'), left mandible with a distinct tooth on apex of blade vestige, right mandible without a tooth.

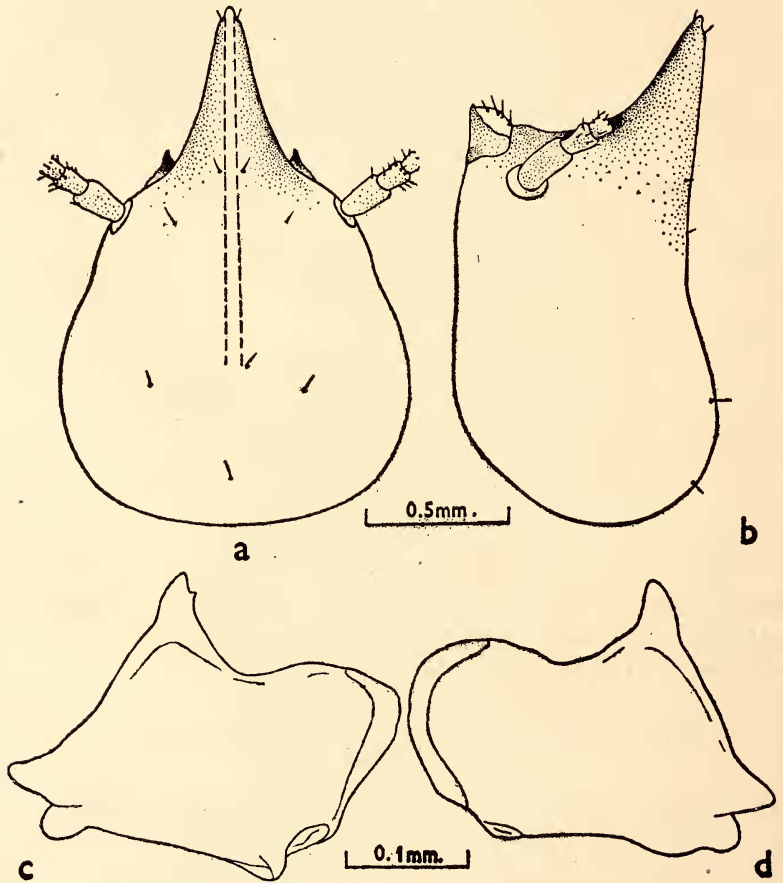


Fig. 1. *Grallatotermes grallator* (Desneux). Soldier caste.

a. Head, dorsal view; b. Head, side view; c, d. Left and right mandible respectively

Pronotum saddle-shaped. Legs long in relation to body-length, hind femora reaching beyond tip of abdomen, tibial spurs 2:2:2.

Abdomen with no hairs on tergites, with many short and long hairs on sternites.

3. WORKER (Fig. 2). Head brown, antennae, labrum, and pronotum paler than head, postclypeus similar to frons in colour.

Head suboval, nearly as broad as long, epicranial suture distinct, fontanelle plate suboval, almost medially situated. Antennae with 14 segments. Postclypeus weakly inflated, length about one-third of maximum width. Anteclypeus subtrapezoid. *Mandibles*: Left mandible

with an apical and two marginal teeth, apical distinctly shorter than first marginal (distance 0.02 mm.), left mandibular index (linear distance between the tips of apical and first marginal tooth divided by the linear distance between the pointed tips of the first marginal and second marginal) 0.25, angle between apical and first marginal

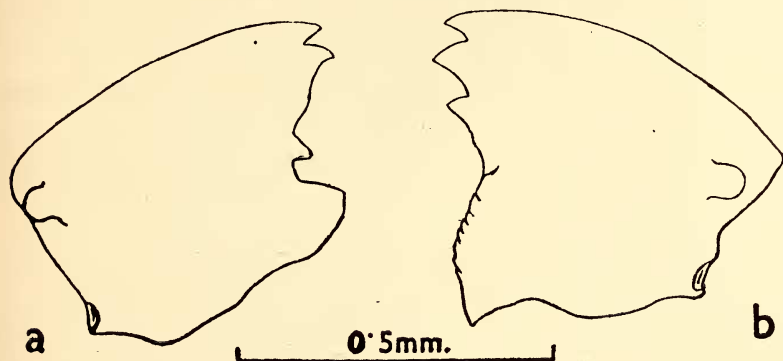


Fig. 2. *Grallatotermes grallator* (Desneux). Worker caste.

a, b. Left and right mandible respectively

about 45°, first marginal large, its posterior edge undulating and not straight, with a rounded notch in front of second marginal (3rd marginal of other) which is small and separated from the molar area by a deep concavity. Right mandible also with an apical and two marginal teeth; apical shorter than first marginal, right mandibular index 0.83; first marginal large, its anterior edge somewhat convex, posterior edge weakly concave; second marginal tooth smaller than first marginal, its posterior edge almost five times longer than its anterior edge; molar area large, almost equal to rest of mandibles (index 0.95), surface convex and serrated.

Comparison

The structure of imago-worker mandibles clearly shows that the genus *Grallatotermes* Holmgren belongs to the *Paracornitermes* branch of the subfamily Nasutitermitinae and not *Procornitermes* branch as suggested by Ahmad (1950) and Sands (1957). The imago-worker mandibles of the *Paracornitermes* branch are characterized by the posterior edge of the first marginal tooth of the left mandible being sinuate and by the presence of a distinct notch in front of the first marginal. On the other hand, in the *Procornitermes* branch the posterior edge of the first marginal tooth of the left mandible of imago-worker is straight and there is no notch in front of the first marginal. Ahmad's erroneous conclusion is apparently due to the

fact that he examined the imago-worker mandibles of *G. splendidus* which is very different from the type species in the structure of imago-worker mandibles.

The genus *Grallatotermes* possesses several primitive characters in both soldier and worker castes. They are as follows :

Soldier : Mandibular blade vestige of left mandible has a small but distinct marginal tooth at the apex; rostrum is short and markedly conical; head-capsule is short and somewhat pragmatic.

Worker : Postclypeus is weakly inflated, its length is about one-third of the maximum width; mandibles are more or less generalised, without enlargement of apical tooth, and with distinct undulation on the posterior edge of 1st marginal; the left mandibular index is very low (0.25).

The closest relative of *Grallatotermes* appears to be the Australian genus *Occasitermes* as is evidenced by the size of the blade vestige of the soldier mandibles, and the general structural pattern of imago-worker mandibles. But *Occasitermes* does not possess any marginal tooth on the mandibular blade vestige in the soldier caste, and the left imago-worker mandible has a higher tooth index (0.50). Among the nasute soldiers, the genus *Grallatotermes* is unique in having an extremely short and markedly conical rostrum accompanied by rather long antennae. It appears that the genus *Grallatotermes* is a primitive genus which has become endemic in New Guinea after its origin from a primitive extinct ancestor.

2. Genus *Philippinitermes* gen. nov.

= Genus *Grallatotermes*, Light, 1930, *Philippine J. Sci.*, 42 (1), pp. 40-41.

< Genus *Grallatotermes*, Light & Wilson, 1936, *Philippine J. Sci.*, 60 (4), p. 476.

< Genus *Grallatotermes*, Snyder, *Smith. misc. Coll.*, 112, p. 314.

Type species. *Philippinitermes admirabilis* (Light), new combination (= *Grallatotermes admirabilis* Light 1930).

The single species *P. admirabilis* (Light) now constitutes this new monotypic genus. The species has been adequately described by Light (1930). The generic diagnoses and comparison are given below.

Material

One vial containing 1 imago, 16 soldiers, and 16 workers in spirit, all Cotypes, collected at Negros, the Philippines (2000 ft.) by S.F. Light (No. 571) on 11-v-1921, det. S. F. Light as *Grallatotermes admirabilis*.

Description

1. **IMAGO.** Head black, postclypeus paler than frons; wings somewhat opaque, pale brown; pilose with numerous short hairs.

Head suboval; longer than wide (without eyes); posterior margin semi-circular behind. Eyes large and projecting. Ocelli large, elongated, and very close to eyes, from which they are separated by less than half their short diameter. Fontanelle plate conspicuous, white, translucent, triangular, and medially situated. Postclypeus moderately swollen, length almost one-fourth of maximum width. Antennae with 15 segments, segment 3 either as long as 2 or slightly shorter. Mandibles: as in worker.

Pronotum flat, with a very weak notch in the centre. Wings covered with minute stellate papillae, with numerous short hairs distally.

2. **SOLDIER** (Fig. 3). Head black, thorax and legs bright yellow, abdominal terga black-brown.

Head broadly pear-shaped; dorsal profile with a well-marked concavity near the middle of head, much elevated at vertex, moderately projecting behind, with a weak constriction behind the base of antennae. Rostrum short, conical, with a broad base, moderately up-lifted in profile. Antennae long, considerably longer than head, with 13 segments, segment 3 almost twice as long as 2. Mandibles with long non-dentate, thin blade vestige without any sensory chitinous patch.

Pronotum saddle-shaped, with a median groove on the surface, no notch on margins. Legs long, hind femur distinctly shorter than abdomen.

Abdominal tergites with a few short hairs at posterior edge.

3. **WORKER** (Fig. 4). Head and abdominal tergites black.

Head broadly oval, epicranial suture prominent, two shining translucent, white oval bodies, one on either side, situated on the arms of epicranial suture. Fontanelle plate large, triangular, white. Antennae with 14 segments, segment 3 as long as or a little longer than 2, 4 shortest. Postclypeus swollen, length about a third of maximum width. *Mandibles*: Left mandible with its outer margin having a broad concavity at the distal third; with an apical and two marginal teeth, apical as long as first marginal, left mandibular tooth index 0.33, angle between the apical and first marginal *c.* 45°, first marginal long, its posterior edge undulating posteriorly, with a rounded notch in front of the 2nd marginal which is separated from the molar area by a concavity. Right mandible also with an apical and 2 marginal teeth; apical only a little shorter than first marginal, apical tooth distance 0.025 mm. Right mandibular tooth index 0.83, first marginal almost triangular, 2nd marginal low, its posterior edge less than 5 times the anterior edge, molar

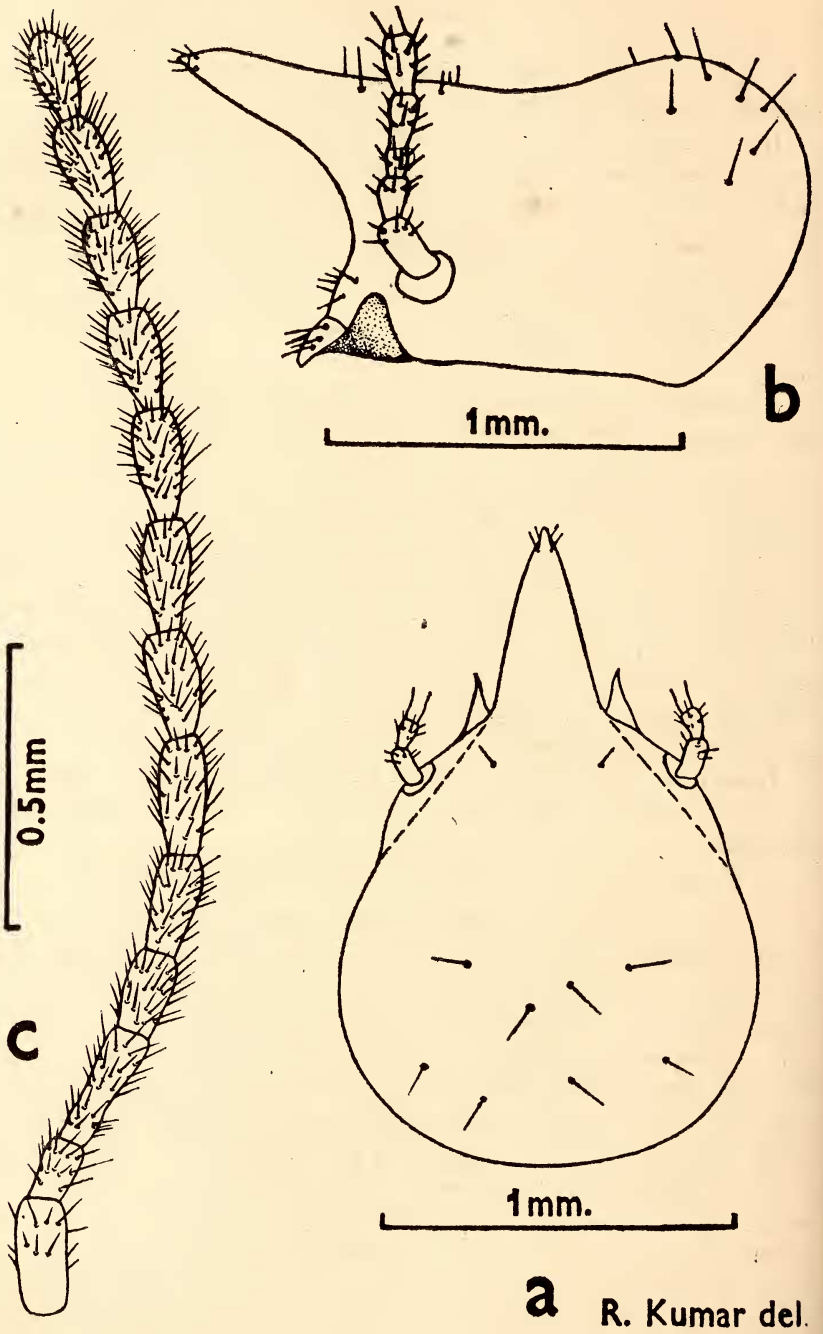
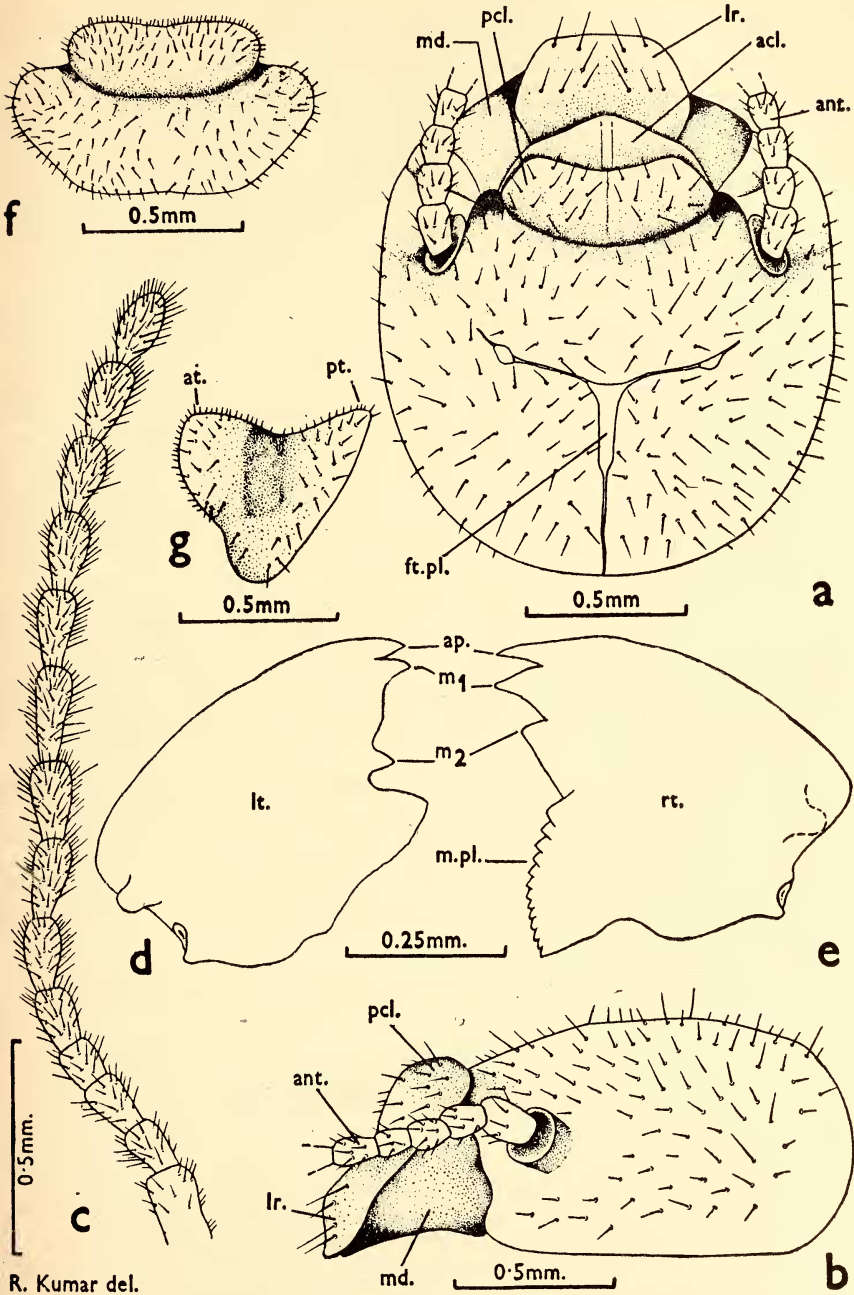


Fig. 3. *Philippinitermes admirabilis* (Light). Soldier caste.

a. Head, dorsal view ; b. Head, side view ; c. Right antenna



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Fig. 4. *Philippinitermes admirabilis* (Light). Worker caste.

a. Head, dorsal view; b. Head, side view; c. Left antenna; d, e. Left and right mandible respectively; f. Pronotum, dorsal view; g. Pronotum, side view

acl., anteclypeus; ant., antenna; ap., apical tooth; at., anterior; ft. pl., fontanelle plate; lr., labrum; lt., left; md., mandible; m₁-m₂, first and second marginal tooth respectively; m. pl., molar plate; pcl., postclypeus; pt., posterior

area almost equal to rest of mandibles, highly rugose. Pronotum strongly saddle-shaped, densely pilose.

Comparison

Philippinitermes admirabilis (Light) differs from *Grallatotermes grallator* (Desneux) as follows :

Soldier. Blade vestige of mandibles are much longer than in *grallator*, non-dentate and thin. Antennae of *Philippinitermes* are not unusually long. Hind femur distinctly shorter than abdomen in *admirabilis*.

Worker. In *P. admirabilis*, apical in left mandible as long as first marginal but distinctly shorter in *grallator*, left mandibular index is 0.33 in *admirabilis* as against 0.25 in *grallator*, posterior edge of first marginal is comparatively less elevated than in *grallator*. In *admirabilis*, posterior edge of 2nd marginal of right mandible is straight (not concave) and is much less than 5 times the anterior edge.

From *Afrograllatotermes africanus*, *Philippinitermes admirabilis* can be distinguished on the basis of the following important characters :

(i) Length of postclypeus in imago caste of *admirabilis* is one-fourth of maximum width whereas it is only a little smaller than half the maximum width in *africanus*.

(ii) Unlike *africanus*, the soldier mandibles in *admirabilis* have a much longer blade vestige and are devoid of any thin chitinous patch at the apices of the molar area.

(iii) The notch in front of the 2nd marginal in the imago-worker mandibles is rounded and broad in *admirabilis*, while it is very sharp and acute in *africanus*.

For comparison with *Indograllatotermes*, see under that genus.

3. Genus *Indograllatotermes* gen. nov.

= subgenus *Grallatotermes* of *Eutermes*, K. & N. Holmgren, 1917, *Mem. Dept. Agr. India*, 5, p. 163.

< genus *Grallatotermes*, Snyder, 1949, *Smith. misc. Coll.*, 112, p. 314.

< genus *Grallatotermes*, Ahmad, 1958, *Biologia*, 4, p. 127.

= genus *Grallatotermes*, Chatterjee & Thapa, 1963, *Indian Forester*, 90, pp. 210-214.

Type species. *Indograllatotermes grallatoriformis* (K. & N. Holmgren), new combination [= *Eutermes (Grallatotermes) grallatoriformis* K. & N. Holmgren 1917].

Other species : *Indograllatotermes niger* (Chatterjee & Thapa), new combination (= *Grallatotermes niger* Chatterjee & Thapa).

Material

(i) One vial containing one soldier and one worker, in spirit, collected at South Kanara, south India, by T. B. Fletcher (No. AAB), det. N. Holmgren as '*Eutermes (Grallatotermes) grallatoriformis*'.

(ii) One vial containing two workers, in spirit, collected at Jell-Kab, Anamalais, south India, by V.S. Iyer on January 1914, det. N. Holmgren as '*Eutermes (Grallatotermes) grallatoriformis*'.

(iii) One vial containing several soldiers and workers, all from Holotype colony, in spirit, collected at Mt. Stuart Block, Tunacadur Range, Top Slip, Madras, ex *Alstonia scholaris* green standing tree, by R. M. Misra (No. 1455) on 20-ix-1962, det. P. N. Chatterjee & R. S. Thapa as '*Grallatotermes niger*'.

Description

1. IMAGO. Not known so far.

2. SOLDIER (Fig. 5). Head brown to dark brown, body yellowish.

Head-capsule pear-shaped from above, with a few short hairs, with a shallow constriction at base of antennae. Rostrum cone-shaped with broad base, apex slightly up-lifted in profile. Antennae with 13 segments, 3rd two-and-a-half times longer than 2nd. Mandibles vestigial, each with a short non-dentate blade vestige, without any hyaline cuticular patch on the molar area.

Pronotum saddle-shaped. Legs long, hairy, hind femur reaching beyond the tip of abdomen.

Abdominal tergites with a few short hairs.

3. WORKER (Fig. 6). Head brown to black, abdominal tergites pale brown to smoky brown.

Head broadly oval, epicranial suture prominent, two shining translucent oval bodies, one on either side, situated on the arms of epicranial suture. Fontanelle plate large, triangular. Antennae with 12 to 14 segments. Postclypeus swollen, length distinctly less than half the width. Labrum dome-shaped. *Mandibles*: Left mandible with its outer margin uniformly convex, with an apical and two marginal teeth, apical distinctly shorter than first marginal (distance 0.025 to 0.038 mm.), left mandibular index 0.33; first marginal prominent, its posterior margin undulating, with a rounded notch in front of second marginal. Right mandible also with an apical and two marginal teeth, apical only a little shorter than first marginal, distances between apical and first marginal and first marginal and second marginal equal (index 1.0);

first marginal almost triangular; second marginal shorter than first marginal, its posterior edge nearly twice the anterior edge; molar area large, equal in length to rest of mandible (index 1.0).

Pronotum strongly saddle-shaped, densely pilose.

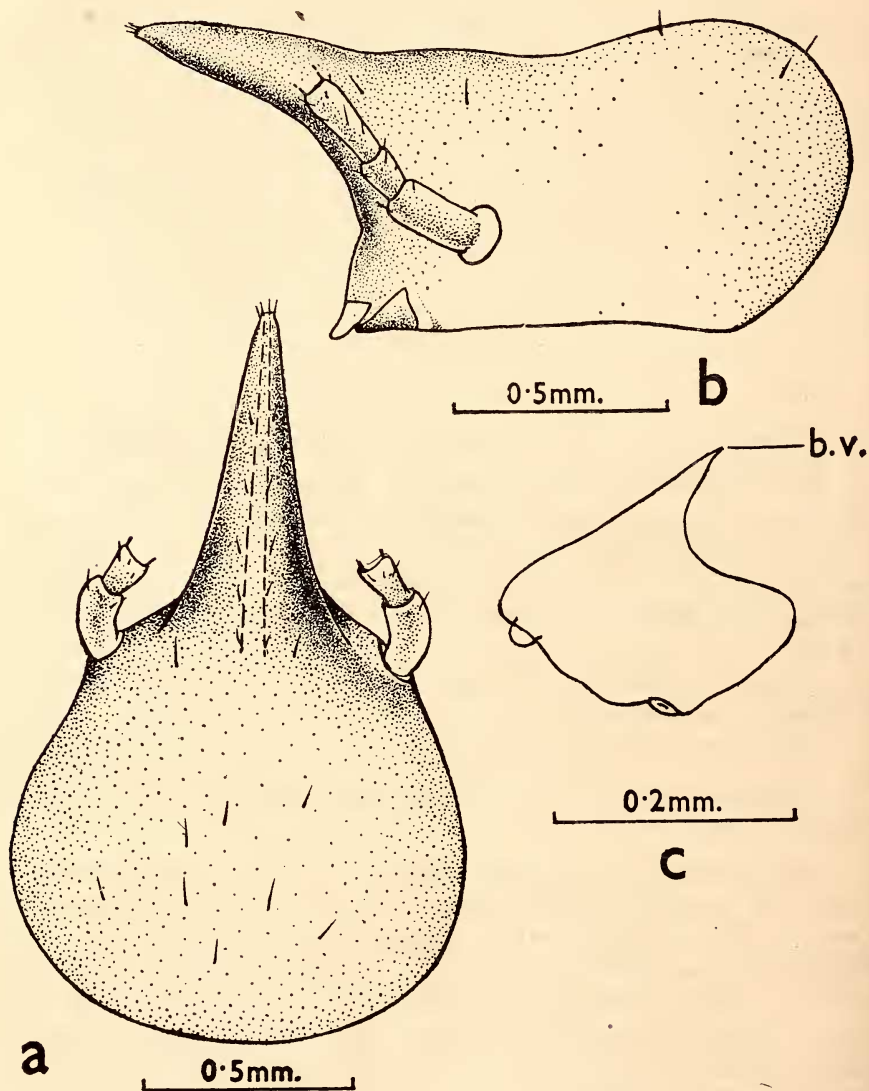


Fig. 5. *Indograllatotermes grallatoriformis* (K. & N. Holmgren).
Soldier caste.

a. Head, dorsal view; b. Head, side view; c. Left mandible
b. v., blade vestige

Comparison

Indograllatotermes gen. nov. differs from *Grallatotermes* in having non-dentate mandibular blade vestige in the soldier caste. With regard to imago-worker mandibles, *Indograllatotermes* differs from *Grallatotermes* as follows: Left mandibular index 0.33 as against 0.25 in *Grallatotermes*, right mandibular index 1.0 as against 0.83 in *Grallatotermes*, molar area of right mandible equal in length to rest of mandible (index 1.0) (shorter in *Grallatotermes*, index 0.95); posterior margin of second marginal tooth of right mandible almost twice the anterior margin (five times in *Grallatotermes*).

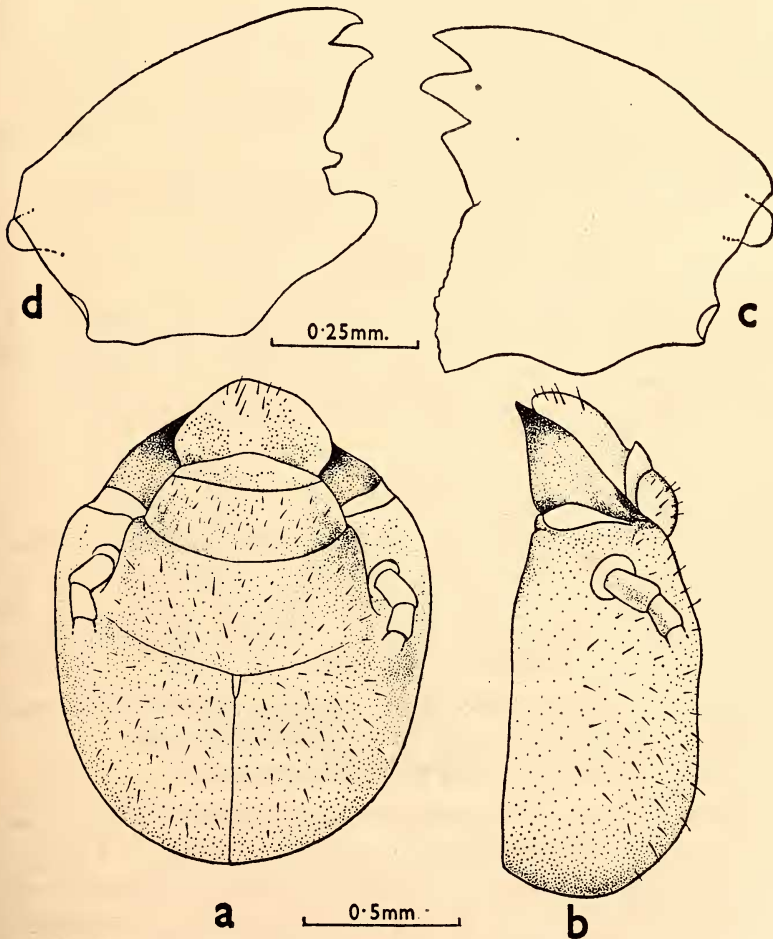


Fig. 6. *Indograllatotermes grallatoriformis* (K. & N. Holmgren).
Worker caste.

a. Head, dorsal view; b. Head, side view; c., d. Right and left mandible respectively

From *Philippinitermes*, *Indograllatotermes* differs as follows:

Soldier. Mandibular blade vestige shorter than in *Philippinitermes*, hind femora reaching beyond the tip of abdomen (falling short in *Philippinitermes*).

Imago-worker. Left mandible with its apical tooth closer to first marginal in *Philippinitermes* than in *Indograllatotermes*; right mandibular index 1.0 in *Indograllatotermes* as against 0.83 in *Philippinitermes*; and posterior margin of second marginal of right mandible almost twice the anterior margin in *Indograllatotermes* (five times in *Philippinitermes*).

4. Genus *Afrograllatotermes* gen. nov.

= genus *Grallatotermes*, Harris, 1954, *Proc. roy. Ent. Soc. Lond.* (B), 23, pp. 135-137.

Type species. *Afrograllatotermes africanus* (Harris), new combination (= *Grallatotermes africanus* Harris, 1954).

The genus is at present represented only by the type species.

Material

One vial with 1 imago, 5 soldiers, and 4 workers, Paratypes and Paramorphotypes from the type colony, collected from 'arboreal nest in wood land' at Ngameni, NE. Tanganyika, by P. B. Kemp on 21-xii-1950, det. W. V. Harris as '*Grallatotermes africanus*'.

Description

1. IMAGO. Head-capsule dark brown, postclypeus similar to head in colour. Head-width across eyes more than head-length up to hind margin of postclypeus; frontal area depressed; eyes large; ocelli large, oval, almost touching the eyes; postclypeus with its length a little lesser than half its width; mandibles as in worker.

Pronotum as wide as head across the eyes; wings densely covered with minute stellate papillae and with numerous short hairs.

Abdomen uniformly covered with short pale hairs.

2. SOLDIER (Fig. 7). Head broadly pear-shaped from above, dorsal profile with a well-marked concavity near the middle of head; with a weak constriction behind the base of antennae; rostrum weakly cone-shaped, slightly up-lifted in profile; antennae with 14 segments, 3rd segment only a little longer than 2nd; mandibles vestigial, each with a short non-dentate blade vestige; with a pale, hyaline cuticular patch at the distal part of molar area of each mandible.

Pronotum saddle-shaped.

3. WORKER (Fig. 8). Head broadly oval, epicranial suture prominent. Fontanelle plate triangular, white, and almost medially situated. Anten-

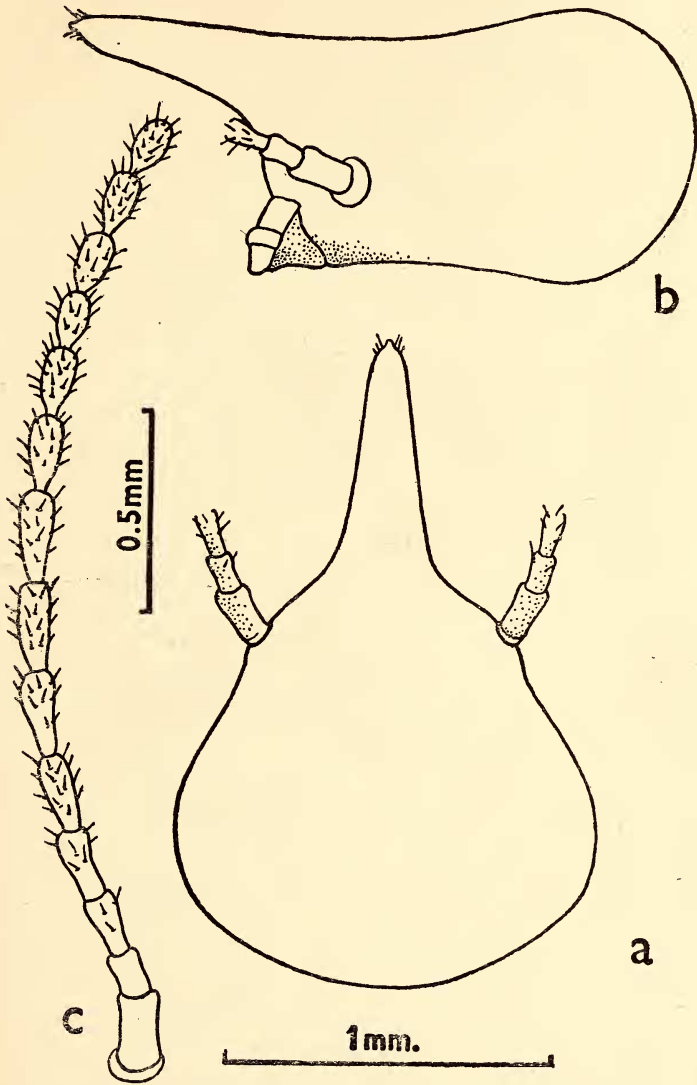


Fig. 7. *Afrograllatotermes africanus* (Harris). Soldier caste.

a. Head, dorsal view ; b. Head, side view ; c. Right antenna

nae with 15 segments, segment 3 as long as 2. Postclypeus swollen, length a little shorter than half its width. *Mandibles*: Left mandible with an apical and two marginal teeth, apical equal in length to and not shorter than first marginal, left mandibular index 0.35, angle between apical and first marginal $c. 45^\circ$, first marginal large, its posterior margin weakly undulating posteriorly, with a sharp notch in front of second

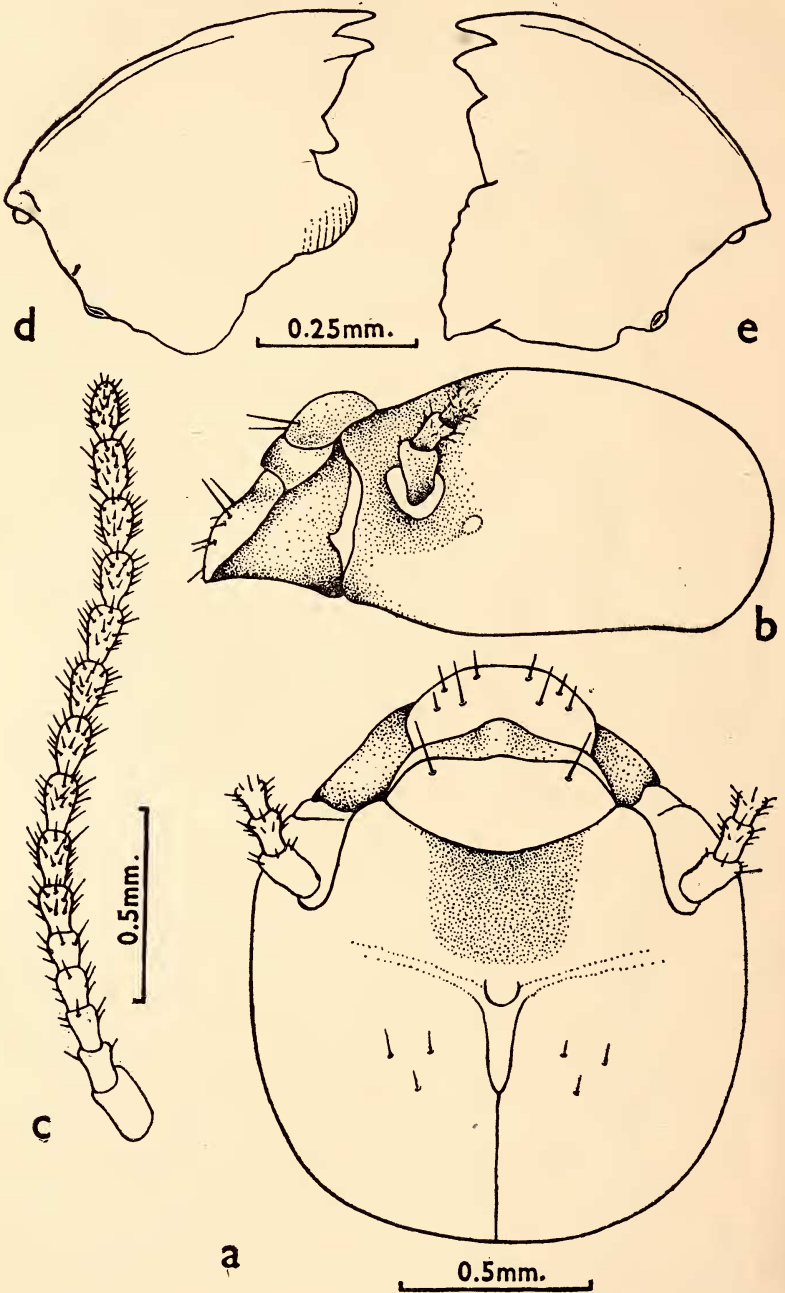


Fig. 8. *Afrogallatotermes africanus* (Harris). Worker caste.

a. Head, dorsal view ; b. Head, side view ; c. Right antenna ; d, e. Left and right mandible respectively

marginal which is small but prominent. Right mandible also with an apical and two marginal teeth, apical tooth as long as first marginal; right mandibular index 0.81; first marginal large, anterior margin somewhat straight, posterior margin weakly undulating; second marginal short, its posterior edge almost thrice of anterior edge, molar area large, equal in length to rest of mandibles (index 1.0), greatly serrated.

Comparison

The genus *Afrograllatotermes* is unique among the genera of *Grallatotermes* complex in having a pale hyaline cuticular patch at the distal part of the molar area of mandibles of the soldier caste. It shares this character with two highly evolved genera, viz. *Trinervitermes* in *Procornitermes* branch and *Convexitermes* in *Paracornitermes* branch. It is not possible to explain the exact significance of this structure but it certainly indicates a phylogenetic advance. It is, therefore, certain that the genus *Afrograllatotermes* is the highest evolved in the *Grallatotermes* line of evolution.

From the genus *Grallatotermes*, *Afrograllatotermes* differs as follows:

Soldier. Shape of rostrum is different in these two genera, rostrum in *Afrograllatotermes* is much less conical than in *Grallatotermes*; mandibular blade vestige without any tooth in *Afrograllatotermes* (a tooth is present on the left mandible in *Grallatotermes*), and the pale hyaline cuticular patch is totally absent in *Grallatotermes*.

Worker. Left mandible with the apical tooth equal in length to the first marginal tooth and with a sharp notch in front of the second marginal tooth in *Afrograllatotermes* (apical shorter than first marginal and with a shallow notch in front of second marginal tooth in *Grallatotermes*). Right mandible with the posterior edge of the second marginal teeth almost thrice the length of anterior margin in *Afrograllatotermes* (five times in *Grallatotermes*).

SYNOPSIS

The genus *Grallatotermes* Holmgren has been redefined. A detailed description of the genus and its comparison with related genera have been given. It is now certain that *Grallatotermes* is a monotypical genus which is endemic in New Guinea. Three new genera related to the genus *Grallatotermes* have been described on the basis of the species which were earlier included in the genus *Grallatotermes* Holmgren. The three new genera are: *Philippinitermes*, *Indograllatotermes*, and *Afrograllatotermes*.

Inter-relationships of these genera have also been discussed. It is pointed out that all these genera correctly belong to *Paracornitermes* branch of the subfamily Nasutitermitinae and not to *Procornitermes* branch as mentioned by earlier authors.

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